

Case CM2017MC

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of :  
FABIO CINELI, ET AL. : Confirmation No.: 1554  
Serial No.: 09/917,469 : Group Art Unit: 1714  
Filed: July 27, 2001 : Examiner: K. W. Lee

For DISPOSABLE ABSORBENT  
ARTICLES WITH IMPROVED  
ADHESIVE FOR  
ATTACHMENT TO THE SKIN  
TO FACILITATE WATER  
ADHESION STABILITY WITH  
LOW PAIN LEVEL REMOVAL

DECLARATION UNDER 37 CFR 1.132

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

I, Stephen Allen Goldman, declare as follows:

THAT I received a Ph.D. degree in Physical Chemistry with a specialty in electron spin resonance spectroscopy from Cornell University in 1973;

THAT, since 1972, I have been an employee of The Procter & Gamble Company in Research and Development;

THAT, my present title is Principal Scientist for The Procter & Gamble Company Corporate Research and Development Division;

THAT, I am familiar with the subject matter of the above-identified Application and with elastomeric pressure sensitive adhesives;

THAT, I am familiar with the subject matter in U.S. Patent No. 4,670,577 issued to Dietz, et al.;

THAT, Dietz discloses a "polymerized micro-emulsion pressure sensitive adhesive" wherein the resulting adhesive preferably has a "bicontinuous structure" comprising a "continuous phase of a hydrophobic pressure sensitive adhesive" and a "continuous phase of a hydrophilic polymer."

Micro-emulsions, as noted by Dietz, are "thermodynamically stable and form spontaneously at contact." They are characterized by a droplet size (i.e., domain size) that is in the order of 0.01 microns (10 nm). They differ from conventional mini-emulsions and macro-emulsions which are "thermodynamically

unstable mixtures of two immiscible liquids," wherein the "stability is purely kinetic." As Dietz notes, the droplet size for mini-emulsions and macro-emulsions are greater than, and typically much greater than, 0.1 microns (100 nm).

Given the above-described physical and thermodynamic characteristics, the "polymerized micro-emulsion pressure sensitive adhesives" of Dietz are clearly distinguishable from the adhesive of the instant Application that comprise, *inter alia*, either "at least one non-emulsified homogeneous phase or at least one emulsified phase wherein all phases have a thickness greater than 50  $\mu\text{m}$ ." This is because when considering their thermodynamic stability, micro-emulsions are properly considered as a single phase and thus can be described as an "emulsified homogeneous phase" system. Considering their thermodynamic instability, mini-emulsions and macro-emulsions can be properly considered as having at least two phases and thus can be described as an "emulsified multiple phase" system.

Additionally, the instant Application is distinguishable from Dietz with respect to the adhesive properties and their respective dependence on the gain or loss of water. As noted in Table A of Dietz, the "useful" adhesives comprise from 2 to 60 weight percent water. The adhesives of Dietz are tested for adhesion in this initial state of hydration (referred to as "wet") and after drying in a vacuum oven at 65°C for 60 minutes (referred to as "dry"). The purpose of this drying step is to remove water. This is clear from the test method described by Dietz at Col. 42, line 14: "The dry adhesion samples were tested after equilibration to the temperature required for the PSTC-1 test with the top liner being immediately placed on the samples upon removal from the vacuum oven to minimize the hydration prior to dry adhesion testing." (Emphasis added) Based upon this described treatment and testing conditions, it is reasonable to conclude that the dry adhesives described by Dietz are intended to have a "minimal" water content which, in most cases, should be less than the initial lower limit for water content of 2 weight percent. Contrastingly, the adhesives of the instant Application comprise at least 3 weight percent water when tested for initial peel strength (i.e., adhesion). The water content is increased prior to the measurement of the final peel strength. Thus, in contrast to Dietz, adhesives of the instant Application always contain at least three weight percent water.

Further Declarant sayeth not.

This declaration is made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 USC 1001 and may jeopardize the validity of the application or any patent issuing thereon.

August 18, 2003  
Date

Stephen Allen Oldman  
Declarant

OFFICIAL

18 US 1001 Whoever, in any matter within the jurisdiction or any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than five years, or both.